IN THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A method for obtaining data from a computed tomography (CT) scan, comprising:

obtaining projection data from at least two detector rows in a CT system;

~~filtering~~ z-filtering the projection data in a direction of the at least two detector rows to obtain filtered data in-which windmill artifacts are reduced, said z-filtering including varying sharpness of filtering so that pixels near an iso-center have higher resolution than pixels in the periphery; and

reconstructing a CT image ~~data from~~ based on the filtered data.

2. (Currently Amended) The method according to Claim 1, wherein the ~~filtering~~ z-filtering is performed in relation to ~~at least one of~~ a ray angle and [[a]] the distance from an iso-center to a detector cell.

3. (Currently Amended) The method according to Claim 1, wherein the ~~filtering~~ z-filtering is performed in relation to [[a]] the distance from an iso-center to a voxel on a ray-sum where the ray-sum coincides with an xy-plane.

4. (Original) The method according to Claim 1, wherein the reconstructing includes backprojecting.

5. (Original) The method according to Claim 4, wherein the backprojecting includes at least one of applying Feldkamp reconstruction, advanced single-slice rebinning, applying an FFT, applying an inverse FFT, and adaptive multiple plane reconstruction.

6. (Currently Amended) An X-ray CT apparatus, comprising:

a helical scanning device configured to collect projection data while at least one of a gantry and a couch moves along an axial direction of the couch, the helical scanning device including,

an X-ray source configured to generate X-rays, and

a detector having detector elements arranged in at least two detector rows along the axial direction and configured to produce the projection data; and

a processor comprising,

a filtering device configured to ~~filter~~ z-filter the projection data in a direction of the at least two detector rows to obtain filtered data in which windmill artifacts are reduced, said z-filtering device configured to vary sharpness of filtering so that pixels near an iso-center have higher resolution than pixels in the periphery, and

a reconstructing device configured to reconstruct a CT image based on the z-filtered data.

7. (Currently Amended) The X-ray CT apparatus according to Claim 6, wherein the z-filtering device is configured to z-filter the projection data based on ~~at least one of~~ a ray angle and [[a]] the distance from an iso-center to a detector cell.

3

8. (Currently Amended) The X-ray CT apparatus according to Claim 6, wherein the z-filtering is performed in relation to [[a]] the distance from an iso-center to a voxel on a ray-sum where the ray-sum coincides with an xy-plane.

9. (Original) The X-ray CT apparatus according to Claim 6, wherein the reconstructing device includes a backprojecting device.

10. (Currently Amended) The X-ray CT apparatus according to Claim 9, wherein the backprojecting device is configured to backproject the z-filtered data by applying at least one of Feldkamp reconstruction, advanced single-slice rebinning, applying an FFT, applying an inverse FFT, and adaptive multiple plane reconstruction.

11. (Currently Amended) An X-ray CT apparatus, comprising:

a helical scanning device configured to collect projection data while at least one of a gantry and a couch moves along an axial direction of the couch, the helical scanning device including,

an X-ray source configured to generate X-rays, and

a detector having detector elements arranged in at least two detector rows along the axial direction and configured to produce the projection data; and a processor comprising,

means for filtering z-filtering the projection data in a direction of the at least two detector rows to obtain z-filtered data in which windmill artifacts are reduced, said z-filtering including varying sharpness of filtering so that pixels near an iso-center have higher resolution than pixels in the periphery, and

a reconstructing device configured to reconstruct a CT image based on the z-filtered data.

4

12. (Currently Amended) The X-ray CT apparatus according to Claim 11, wherein the means for z-filtering filters the projection data based on ~~at least one of~~ a ray angle and [[a]] the distance from an iso-center to a detector cell.

13. (Currently Amended) The X-ray CT apparatus according to Claim 11, wherein the z-filtering is performed in relation to [[a]] the distance from an iso-center to a voxel on a ray-sum where the raysum coincides with an xy-plane.

14. (Original) The X-ray CT apparatus according to Claim 11, wherein the reconstructing device includes a backprojecting device.

15. (Currently Amended) The X-ray CT apparatus according to Claim 14, wherein the backprojecting device is configured to backproject the z-filtered data by applying at least one of Feldkamp reconstruction, advanced single-slice rebinning, applying an FFT, applying an inverse FFT, and adaptive multiple plane reconstruction.

16. (Currently Amended) A computer program product storing instructions for execution on a computer system, which when executed by the computer system, causes the computer system to perform the following steps:

obtaining projection data from at least two detector rows in a CT system;

~~filtering~~ z-filtering the projection data in a direction of the at least two detector rows to obtain z-filtered data in which windmill artifacts are reduced, said z-filtering including

varying sharpness of filtering so that pixels near an iso-center have higher resolution than pixels in the periphery; and

reconstructing a CT image based on the z-filtered data.

17. (Currently Amended) The computer program product according to Claim 16, wherein the z-filtering is performed in relation to at least one of a ray angle and [[a]] the distance from an iso-center to a detector cell.

18. (Currently Amended) The computer program product according to Claim 16, wherein the z-filtering is performed in relation to [[a]] the distance from an iso-center to a voxel on a ray-sum where the ray-sum coincides with an xy-plane.

19. (Original) The computer program product according to Claim 16, wherein the reconstructing includes backprojecting.

20. (Original) The computer program product according to Claim 19, wherein the backprojecting includes at least one of applying Feldkamp reconstruction, advanced single-slice rebinning, applying an FFT, applying an inverse FFT, and adaptive multiple plane reconstruction.

21. (New) The method according to Claim 1, wherein the z-filtering comprises increasing the sharpness of a kernel with decreasing distance from the iso-center to the detector cell.

22. (New) The X-ray CT apparatus according to Claim 6, wherein the z-filtering device is configured to increase the sharpness of a kernel with decreasing distance from the iso-center to the detector cell

23. (New) The X-ray CT apparatus according to Claim 11, wherein the means for z-filtering increases the sharpness of a kernel with decreasing distance from the iso-center to the detector cell

24. (New) The computer program product according to Claim 16, wherein the z-filtering comprises increasing the sharpness of a kernel with decreasing distance from the iso-center to the detector cell